

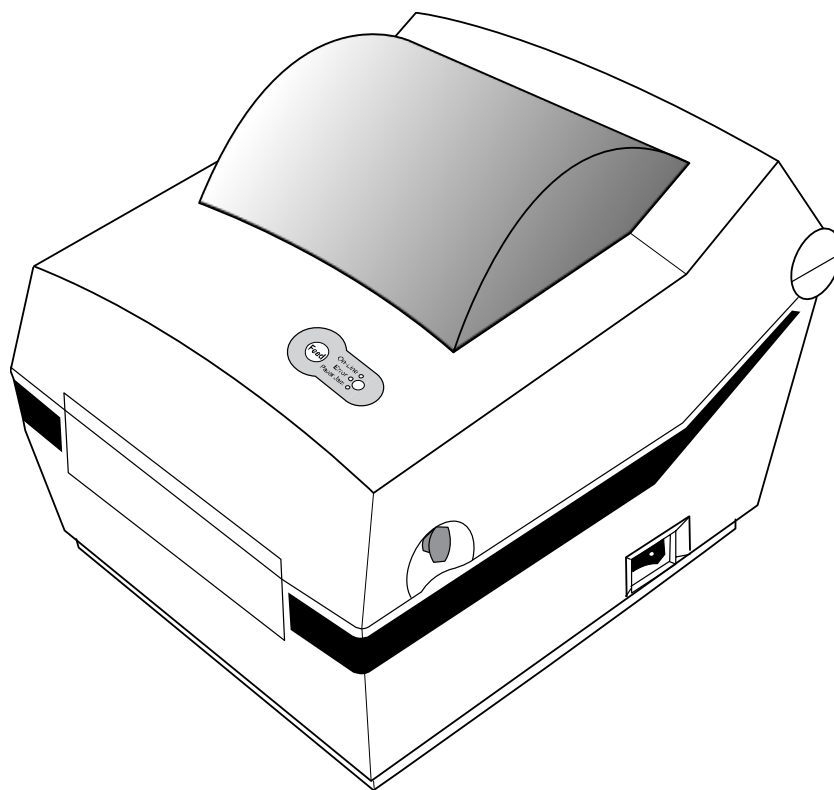
METAPACE

User's Manual

Metapace L-1

Label Printer

Rev. 1.00



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■ Manual Information

This user manual contains basic information for product usage as well as for emergency measures that may be required.

※ The following separate manuals provide more detailed content on various technological issues and areas.

1. Windows Driver Manual

This manual provides information on the installation instructions and main functions of the Windows Driver.

2. Unified Label Printer Utility Manual

This manual provides information on the usage of software for function selection of this product, operating condition modification, etc.

The following functions are available.

- 1) Firmware Downloader
- 2) Factory Font Downloader
- 3) Soft-Font (or Downloadable-font) Downloader
- 4) PCX File Downloader
- 5) User Setting Manager
- 6) File Transfer Manager
- 7) SLCS Tester

3. Programming (SLCS) Manual

This manual provides information on label printer commands.

4. True Font Downloader Manual

This manual provides information on the usage of the font downloader that can download True Fonts and facilitate their usage as Device Fonts.

5. Ethernet interface Manual

This manual provides information on the configuration and usage of Ethernet interface.

6. Label craft Manual

This manual provides information on the usage of the Windows PC program that can make labels by adding text, graphics, or barcodes at desired positions.

■ Safety Precautions

In using the present appliance, please keep the following safety regulations in order to prevent any hazard or material damage.



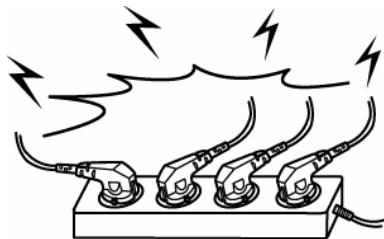
WARNING

Violating following instructions can cause serious injury or death.

Do not plug several products in one multi-outlet.

- This can provoke over-heating and a fire.
- If the plug is wet or dirty, dry or wipe it before usage.
- If the plug does not fit perfectly with the outlet, do not plug in.
- Be sure to use only standardized multi-outlets.

PROHIBIT



You must use only the supplied adapter.

- It is dangerous to use other adapters.

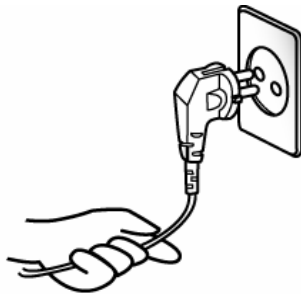
PROHIBIT



Do not pull the cable to unplug.

- This can damage the cable, which is the origin of a fire or a breakdown of the printer.

PROHIBIT



Keep the plastic bag out of children's reach.

- If not, a child may put the bag on his head.

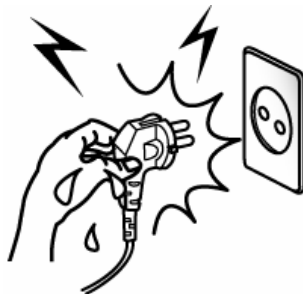
PROHIBIT



Do not plug in or unplug with your hands wet.

- You can be electrocuted.

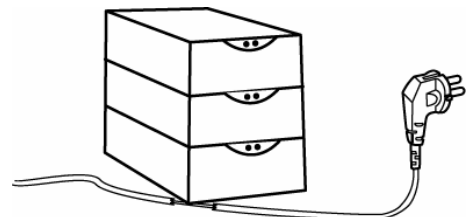
PROHIBIT



Do not bend the cable by force or leave it under any heavy object.

- A damaged cable can cause a fire.

PROHIBIT





CAUTION

Violating following instructions can cause slight wound or damage the appliance.

If you observe a strange smoke, odor or noise from the printer, unplug it before taking following measures.

- Switch off the printer and unplug the set from the mains.
- After the disappearance of the smoke, call your dealer to repair it.

TO UNPLUG



Keep the desiccant out of children's reach.

- If not, they may eat it.

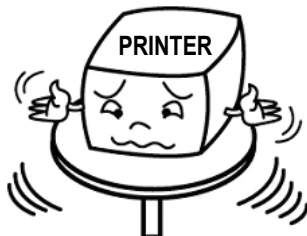
PROHIBIT



Install the printer on the stable surface.

- If the printer falls down, it can be broken and you can hurt yourself.

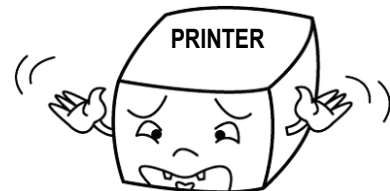
PROHIBIT



Use only approved accessories and do not try to disassemble, repair or remodel it for yourself.

- Call your dealer when you need these services.
- Do not touch the blade of auto cutter.

**DISASSEMBLING
PROHIBITED**



Do not let water or other foreign objects in the printer.

- If this happened, switch off and unplug the printer before calling your dealer.

PROHIBIT



Do not use the printer when it is out of order. This can cause a fire or an electrocution.

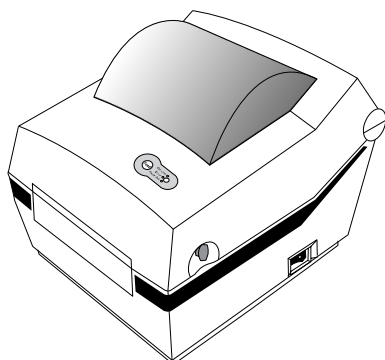
- Switch off and unplug the printer before calling your dealer.

TO UNPLUG

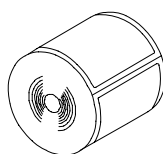


1. Content Confirmation

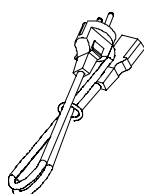
The following items should all be contained in the printer package.
Contact the dealer from which the purchase was made if any item is damaged and/or missing.



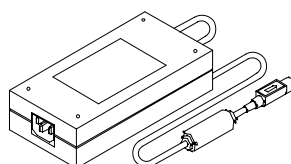
Metapace L-1



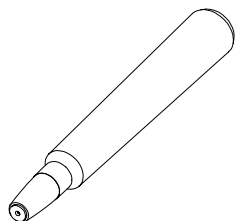
Paper



Power Cord



AC Adapter



Cleaning Pen



CD



User's Manual

※ Optional items



RS-232C (Serial) Cable

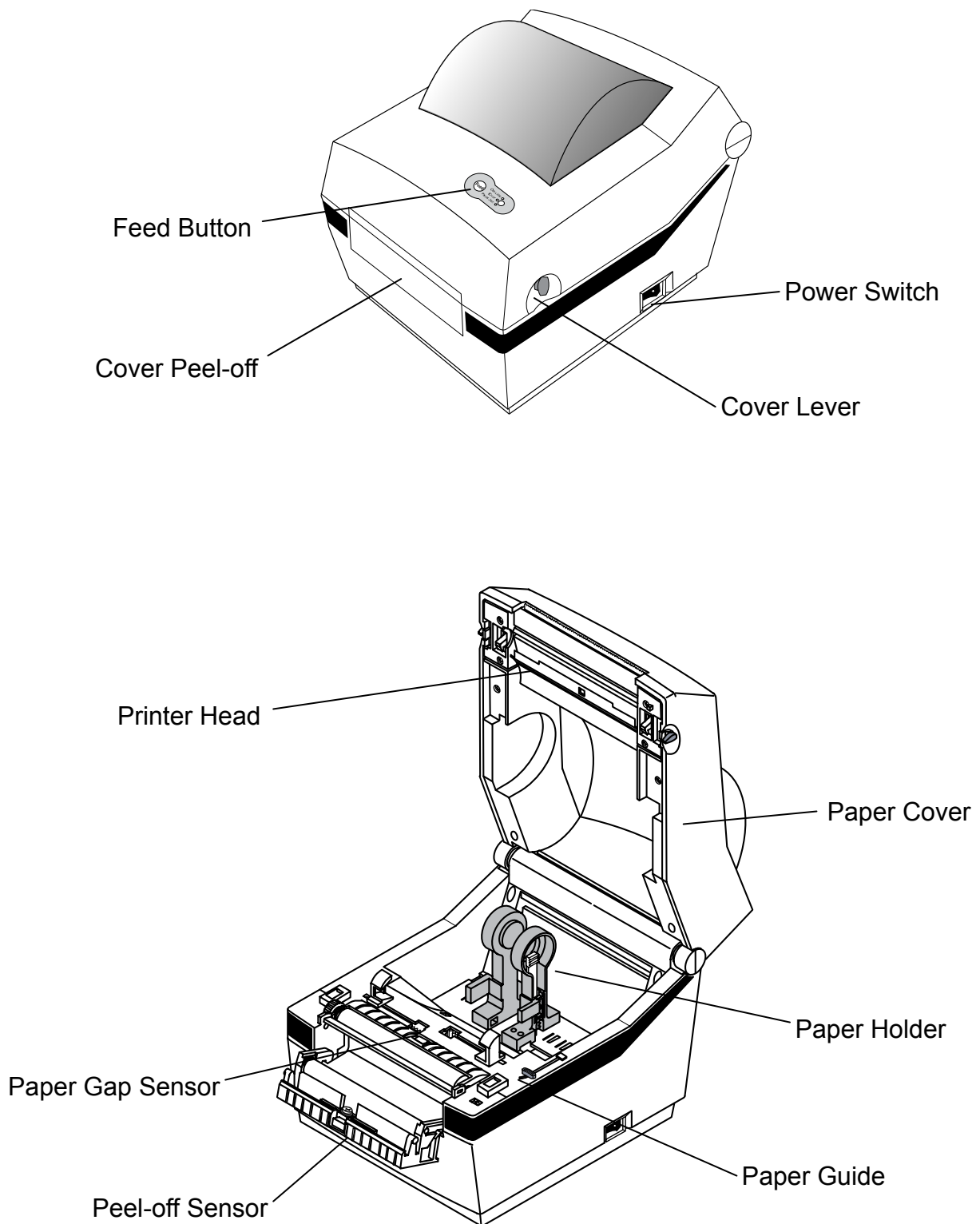


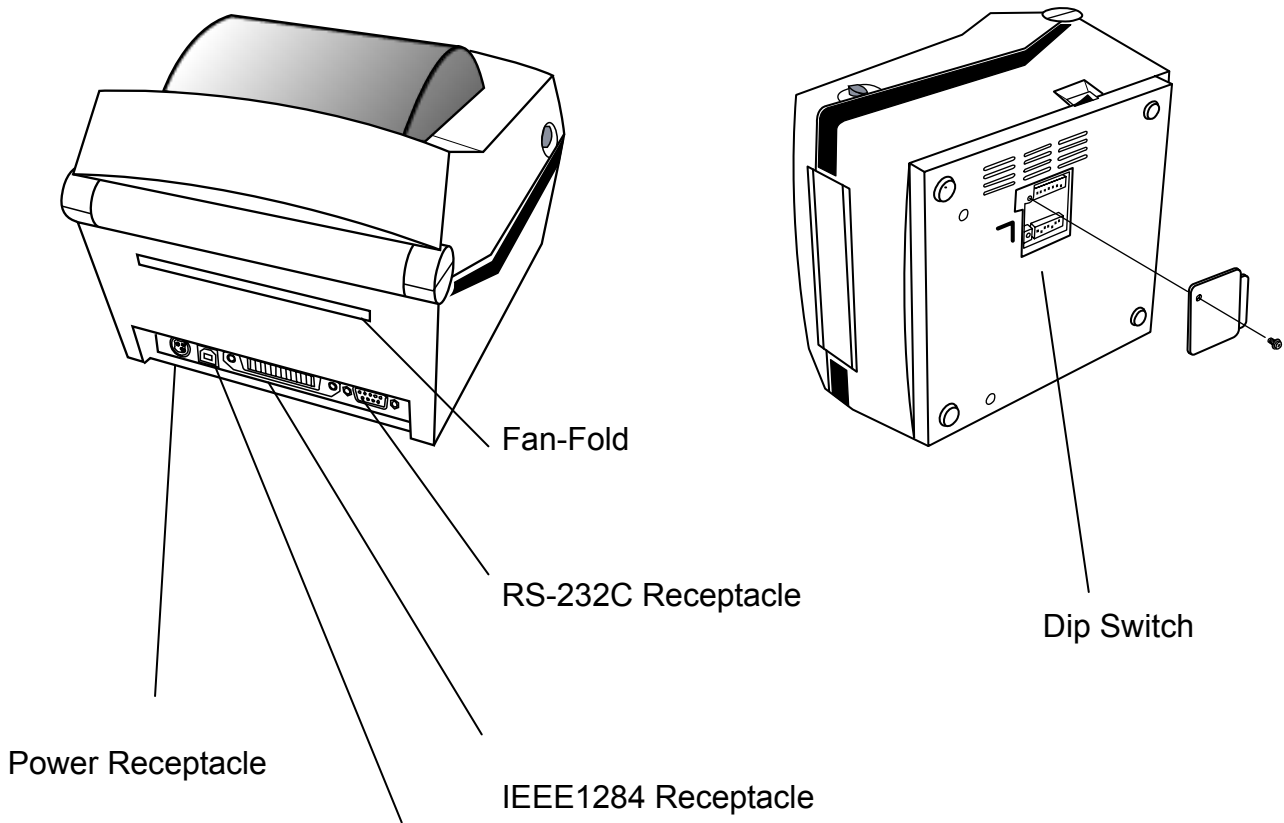
IEEE1284 (Parallel) Cable



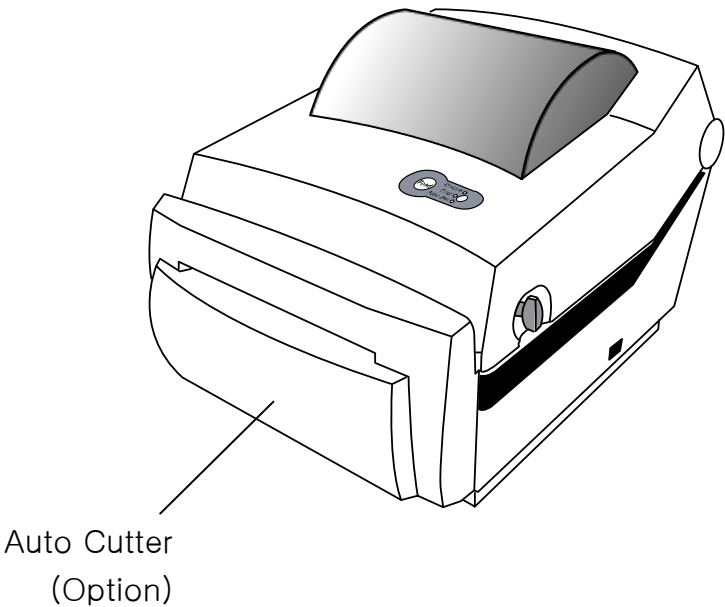
USB Cable

2. Product Part Names





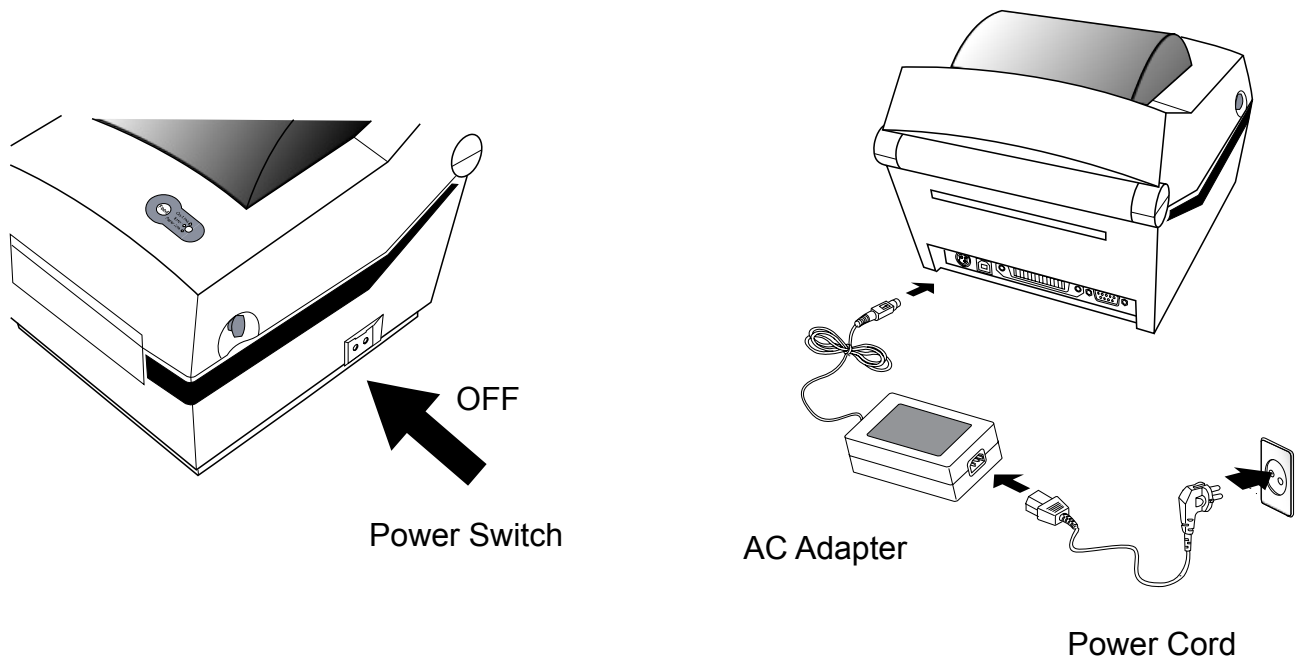
USB Receptacle



3. Installation & Usage

3-1 Power Connection

Connect power to the printer as shown below.



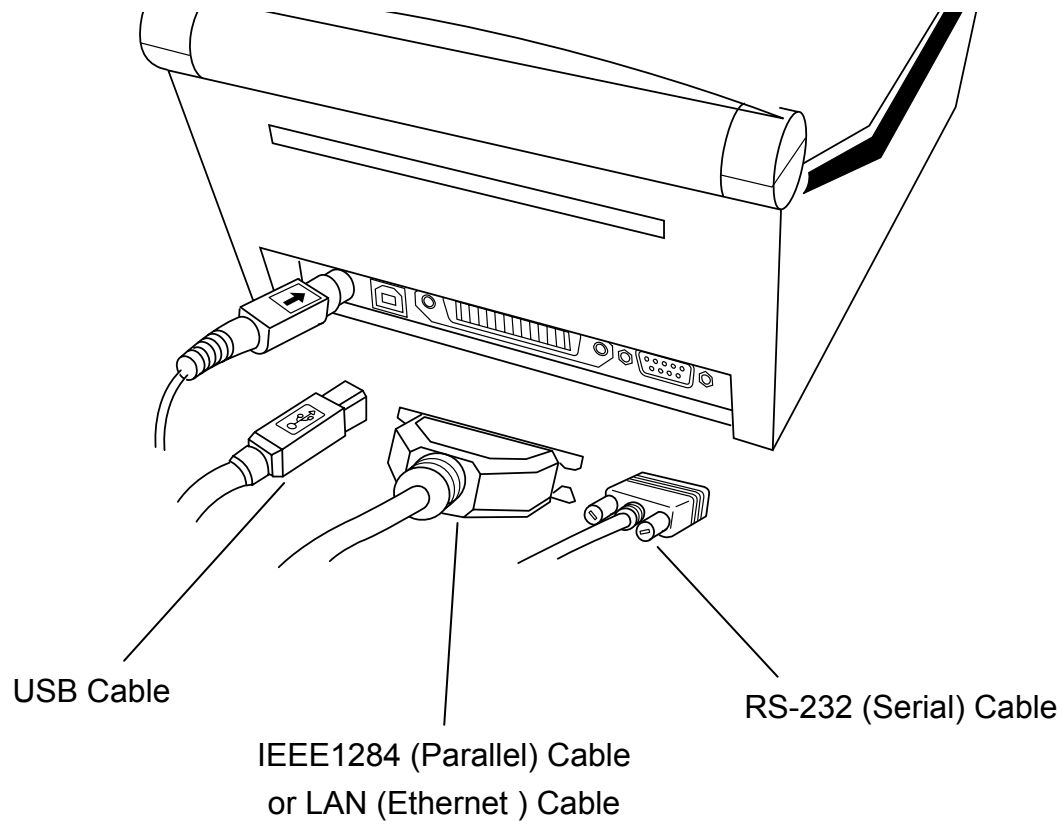
- 1) Turn off the printer power switch.
- 2) Check to see that the AC adapter voltage matches that of the power source.
- 3) Connect the AC adapter jack to the printer power connector.
- 4) Connect the power cord to the AC adapter.
- 5) Connect the power cord to a power source/outlet.

3-2 Interface Cable Connection

Connect the interface cable as shown below.

This printer supports the following communications interface standards.

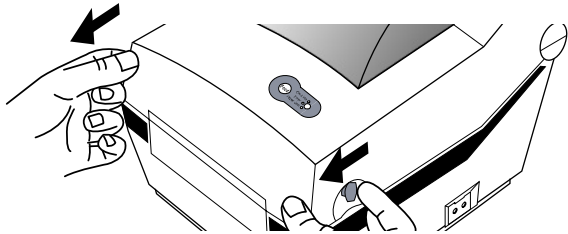
- RS-232C (Serial)
- IEEE1284 (Parallel)
- USB
- Ethernet



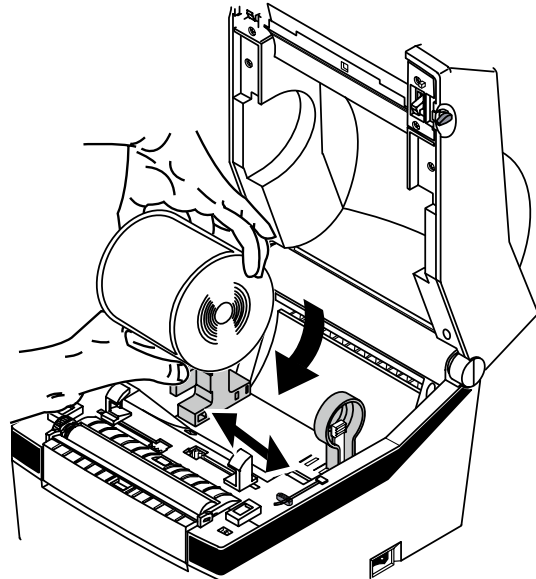
- 1) Turn off the power switch.
- 2) Connect the communication cable to the printer communication port to be used.
 - For a Serial cable, secure by tightening the screws on both sides.
 - For a Parallel cable, secure by fastening the clips on both sides.
 - Connect USB cable when using USB interface.
 - Connect LAN cable when using Ethernet interface.

3-3 Paper Installation

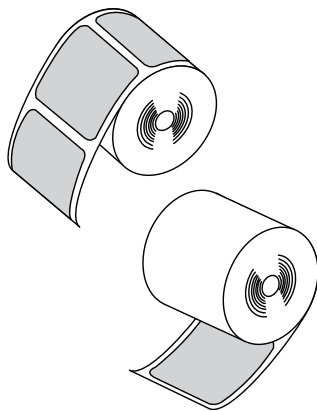
1) Open the Paper Cover.



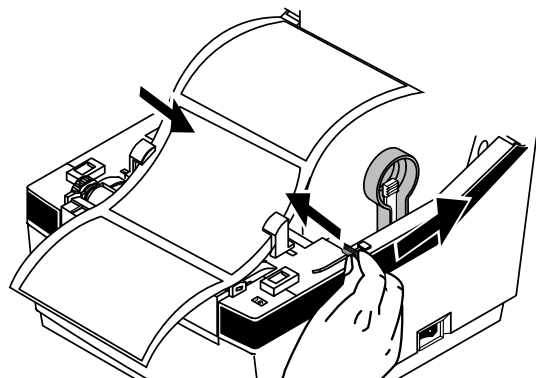
2) Spread the paper holder and insert paper as shown.



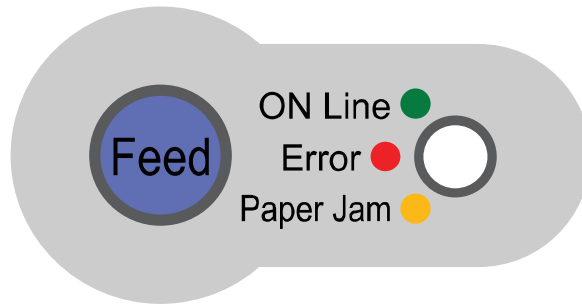
3) Keep note of paper printing direction.



4) Adjust the paper guide to the width of the paper.



5) Close the Paper Cover.

3-4 LED Display

Feed button Paper feed or cancel the print job.

LED The current printer status can be viewed. (Refer to below)

The current printer status can be viewed via the printer's LED display.

- 1) Green LED on
 - The printer waits for the data from Host (PC) in normal mode.
- 2) Orange LED on
 - It means paper gap sensing error. It becomes on when the printer fails to detect the paper or paper jam occurred. When fails to detect the paper correctly use Auto-Calibration function.
- 3) Red LED on
 - The printer has stopped by pressing FEED button. It restarts printing when pressed again.
- 4) Green LED blinking
 - TPH (Thermal Printing Head) overheated or ;
 - The printers is waiting for the button input to run Auto-Calibration function.
- 5) Orange LED blinking
 - No paper. Make sure the paper is loaded correctly.
- 6) Red LED blinking
 - The printer cover is open or ;
 - Auto cutter has error such as paper jam in case of auto cutter built-in model.

3-5 Test printing

3-5-1 Printing using Windows driver

1) Install the Windows driver.

Refer to the “Windows driver manual” in the CD for the installation procedure.

2) Set the “port” of Windows driver to the appropriate interface to be used. Refer to the “Ethernet interface user’s manual” in the CD when using Ethernet interface.

3) Print the test page using the “Print test page” function of Windows driver.

3-5-2 Printing using label design program

- Label design program is sold separately, and contained in the CD.

1) Install the label design program.

2) Configure the interface by referring to the “Label craft manual” in the CD.

3) Print the test page after designing a label.

4. Self-Test

The self-test checks whether the printer has any problems.
(Users cannot perform this procedure if using the printer's label peel-off option.)
If the printer does not function properly, contact an authorized dealer.

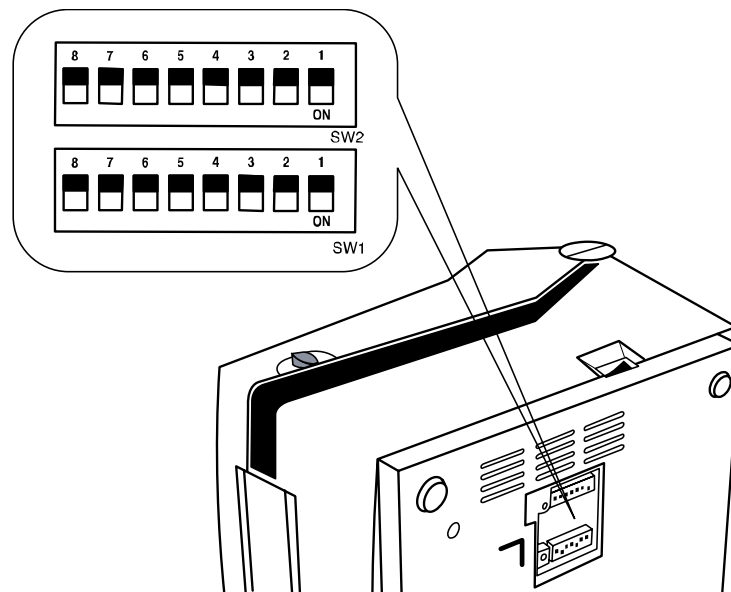
The self-test checks the following;

- 1) Make sure that the paper roll has been installed properly.
 - 2) Turn on the power while holding down the FEED button. The self-test begins.
 - 3) The self-test prints the current printer status, which provides the control ROM version and the DIP switch settings.
 - 4) After the self-test results are printed out:
 - No button input within 2 seconds: Normal Print Mode
 - Button pressed once within 2 seconds: Hex Dump Mode
 - Button pressed twice within 2 seconds: Line Print Mode
- * Line Print Mode.
Received data is printed in sequence similar to a receipt printer.

5. Detailed features

5-1 Printer Settings with Dip switches

The dip switches are located on the bottom of the printer.
The dip switches are used to set the printer to perform various functions.



Follow these steps when changing dip switch settings:

- 1) Turn the printer power switch off.
- 2) Remove the screw on the bottom of the printer and open the bracket.
- 3) Flip the dip switches using tweezers or another narrow-ended tool.
Switches are off when up and on when down following the figure.
- 4) New settings take effect when the printer is turned back on.

[Table 1] Dip Switch 1

No	Functions	Details			
1-1	Speed Selection	Off	4.0 ips		
		On	5.0 ips		
1-2 1-3 1-4	Density Selection	4	3	2	Density
		Off	Off	Off	13
		Off	Off	On	14
		Off	On	Off	15
		Off	On	On	16
		On	Off	Off	17
		On	Off	On	18
		On	On	Off	19
		On	On	On	20
1-5	Exhibition Selection	Off	Normal Mode		
		On	Demo Mode		
1-6	Media Selection	Off	Label Paper		
		On	Thermal Continuous Paper		
1-7	Auto Cutter	Off	Without Auto Cuter		
		On	With Auto Cuter		
1-8	Back Feed Option	Off	Back Feeding Enable		
		On	Back Feeding Disable		

[Table 2] Dip Switch 2

Table 2: Dip Switch 2

No	Functions	Details		
2-1 2-2	Baud Rate Selection	2	1	Baud Rate
		Off	Off	9,600 bps
		Off	On	19,200 bps
		On	Off	230,400 bps
		On	On	115,200 bps
2-3	Media Detection	Off	Detect Gap	
		On	Detect Black-mark	
2-4	Reserved	Default --- off		
2-5	Reserved	Default --- off		
2-6	Reserved	Default --- off		
2-7	Paper End Sensor Status	Off	Enable	
		On	Disable	
2-8	Reserved	Default --- off		

5-2 Pause/Restart

Press FEED button to pause at the middle of labels printing.

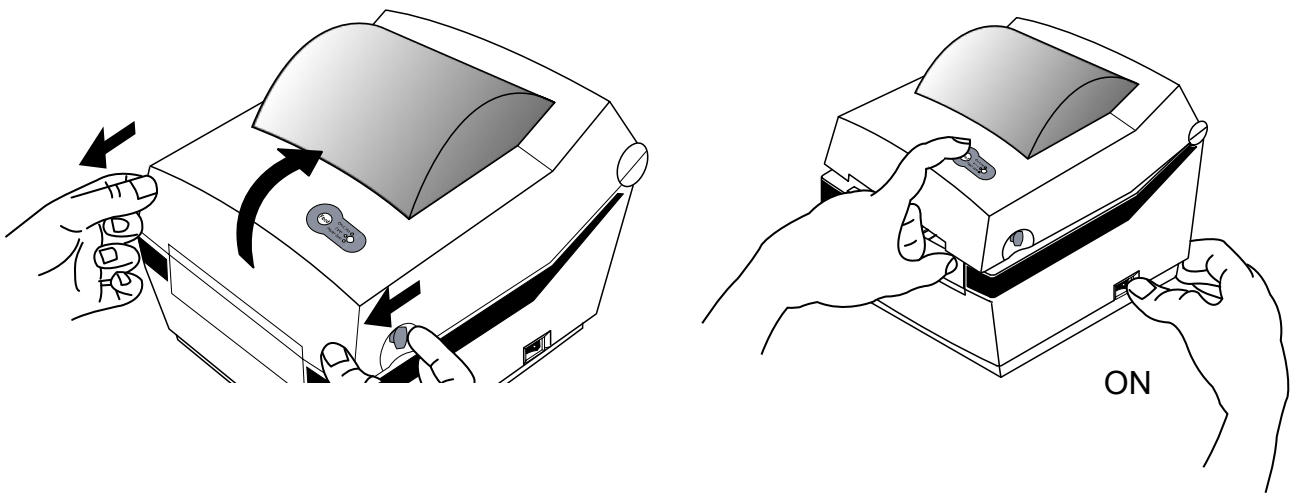
- 1) Press FEED once.
- 2) Printer stops after on-going printing and Red LED becomes on.
- 3) Press FEED once again. It restarts printing in a queue.

5-3 Gap Sensor Auto-Calibration

Gap sensor auto-calibration is used when the printer does not detect a gap on the label paper correctly.

Generally a printer is set to detect most of gap types but sometimes it fails to detect and keep feeding the paper without a stop when special paper used. In such case, use gap sensor auto-calibration function for a proper detection.

- 1) Make sure that paper roll has been installed properly.
- 2) Turn on the power while holding down FEED button with cover open.
Then the Green LED blinks.



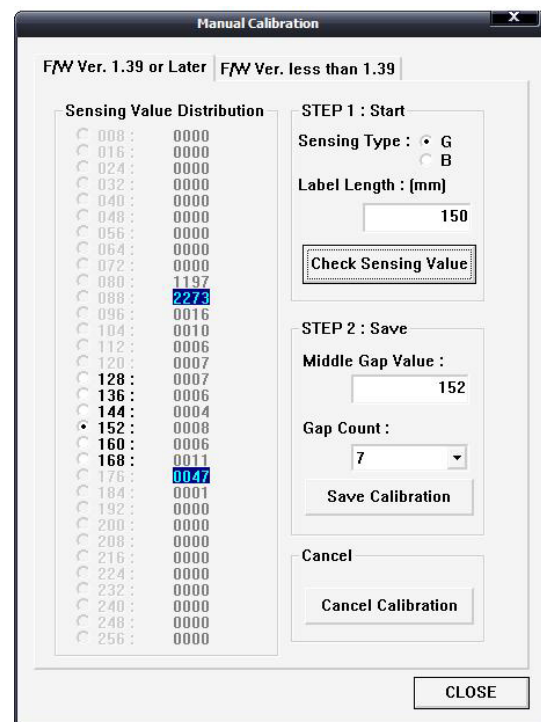
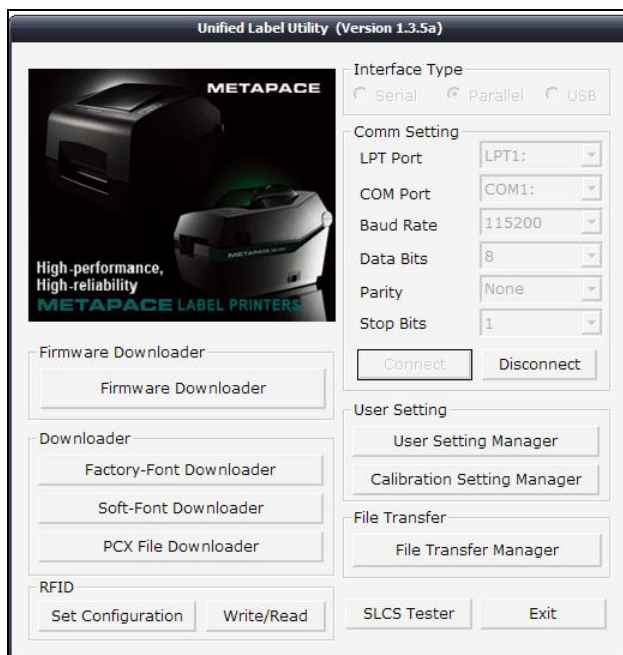
- 3) Close the ribbon roll and paper cover.
 - An information message is printed out and the red LED turns on.
- 4) Press the paper feed button.
 - ① Once
 - The LED color changes to orange.
 - The previous gap sensor correction value is erased and reset to its default value.
 - ② Twice
 - The LED color changes to green.
 - The gap sensor auto-calibration is performed as 2~3 pages of paper are fed continuously.
- 5) Gap sensor auto-calibration is complete.

5-4 Gap Sensor Manual-Calibration

Manual-calibration of media detection can be used when the printer cannot detect a media gap (or black mark) even after auto-calibration has been executed.

Users can calibrate sensor parameters in detail by using the utility program provided by the manufacturer.

Please make sure the printer is connected and execute the utility program.
Please the Calibration Setting Manager Button after setting the interface type.



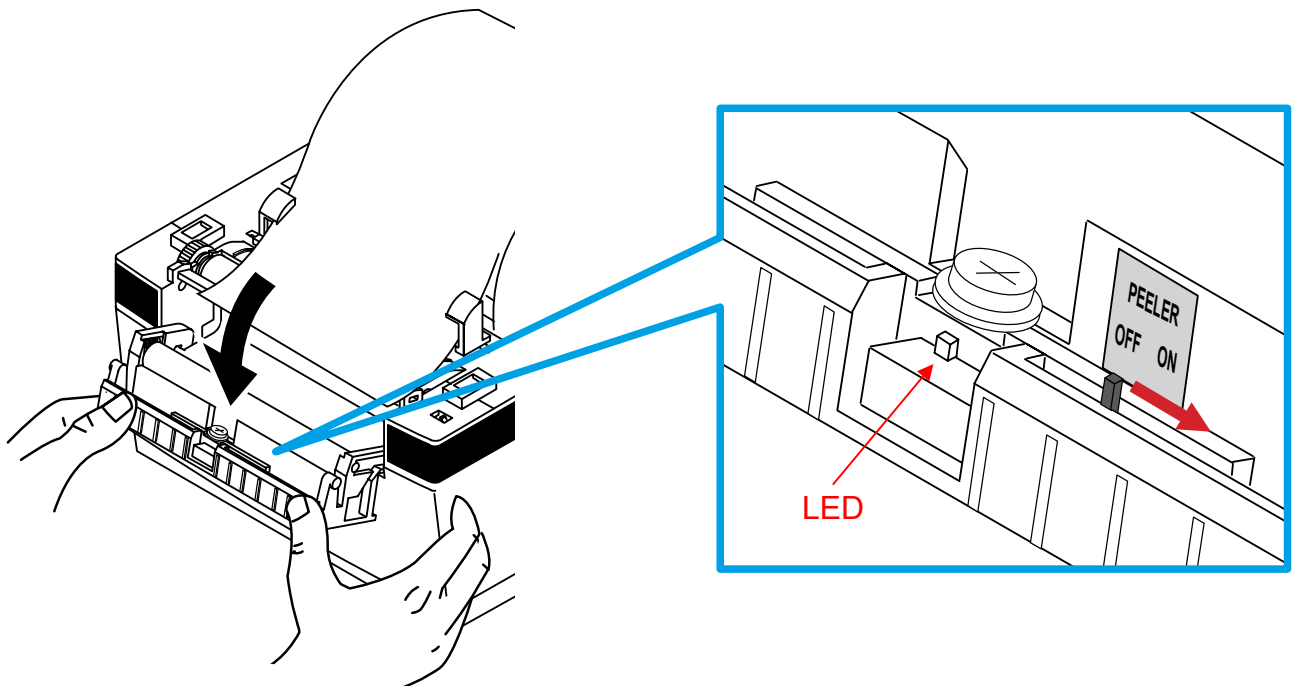
- 1) If the firmware version is Ver.1.39 or higher, please click “F/W Ver. 1.39 or Later” tap.
If the firmware is lower than Ver.1.39, please click on “F/W Ver. Less than” tab.
- 2) Select the sensing type and input the label length by millimeter and click on “Check Sensing Value” tap. Then printer starts to calibrate.
- 3) Printer will print the scanned values after calibration and the values will appear on the Screen.
- 4) Optimal sensing values will appear in black bold letters on the left of the utility screen and select one of the values and click on “Save Calibration”
- 5) If chosen value does not work properly, please try the other values among the black bold letters.
- 6) To go back to the initial value, please click on “Cancel Calibration”.

5-5 The Peel-Off

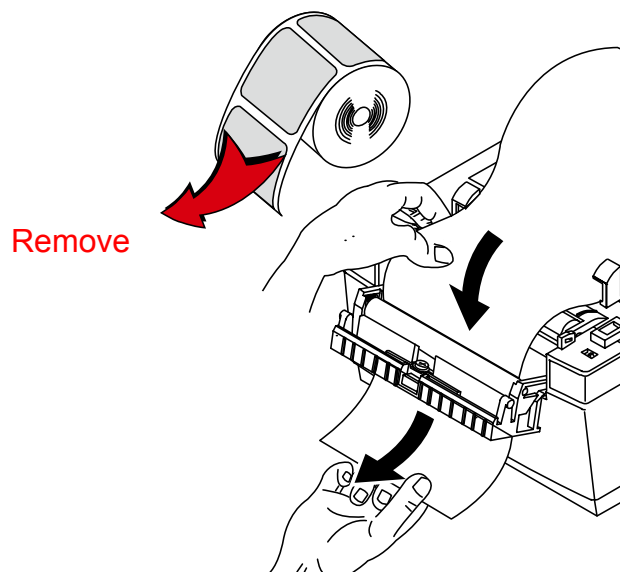
This function is used to automatically separate labels from the liner.

- The peeler is for Label Paper only.
- When the peeler switch is on, labels are not printed if previous printed labels have been removed from the peeler.
- When the peeler function is not required, turn the peeler switch off. Keeping the switch on may result in the printer not working correctly.
- When the peeler switch has been changed, the printer should be turned off and back on.

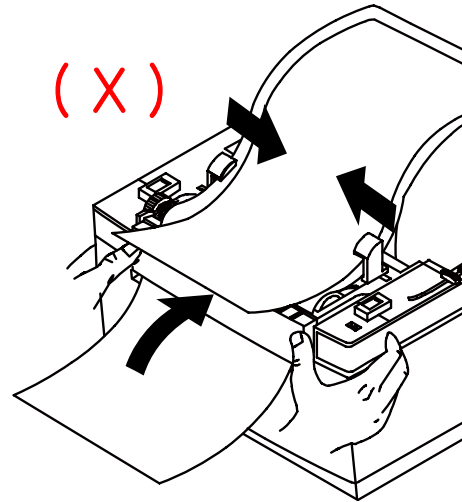
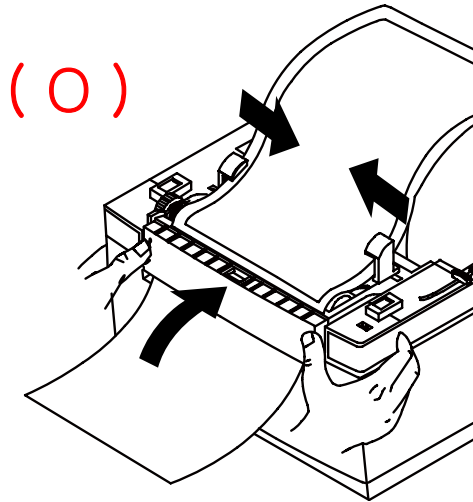
1) Open the peel-off cover and turn on the peeler switch. (Check if the peeler LED is on.)



2) Remove the paper and insert the paper through the slot.



3) Adjust the paper guides and close the cover.

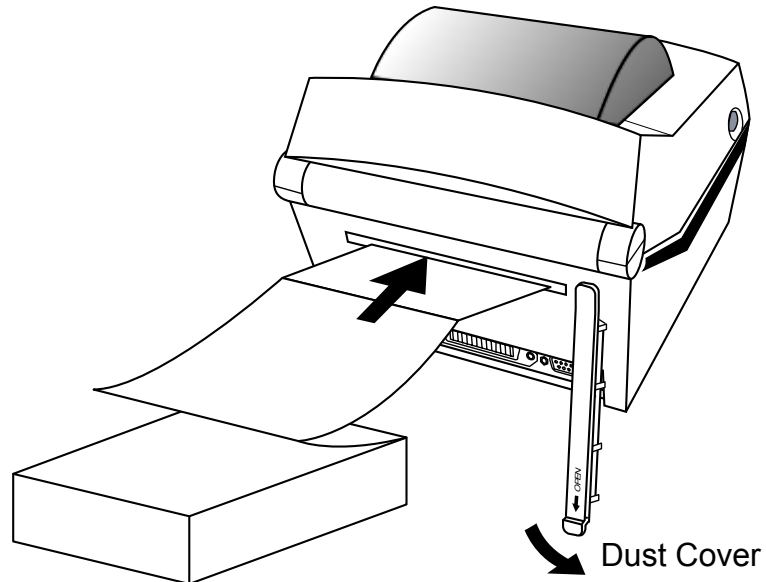


4) Turn the printer off and back on.

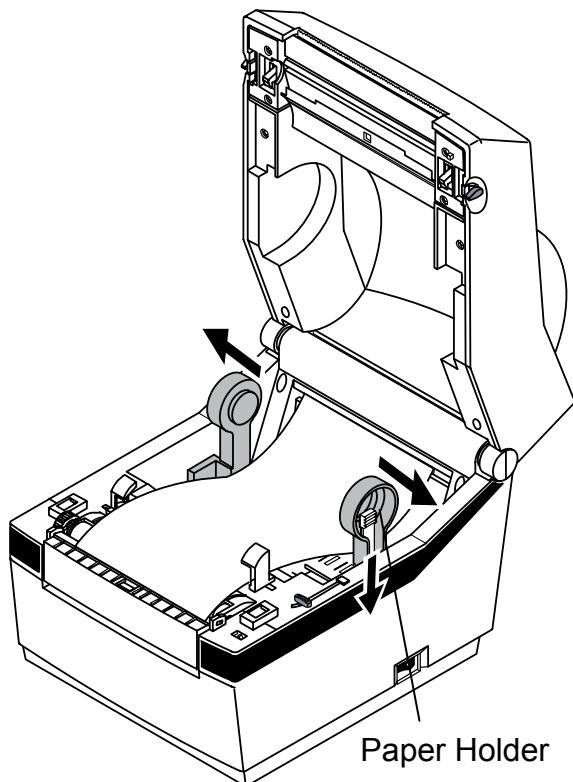
5-6 Using Fan-Fold Paper

Insert paper through both the rear slot and guides.
Adjust holders and guides to the width of the paper.

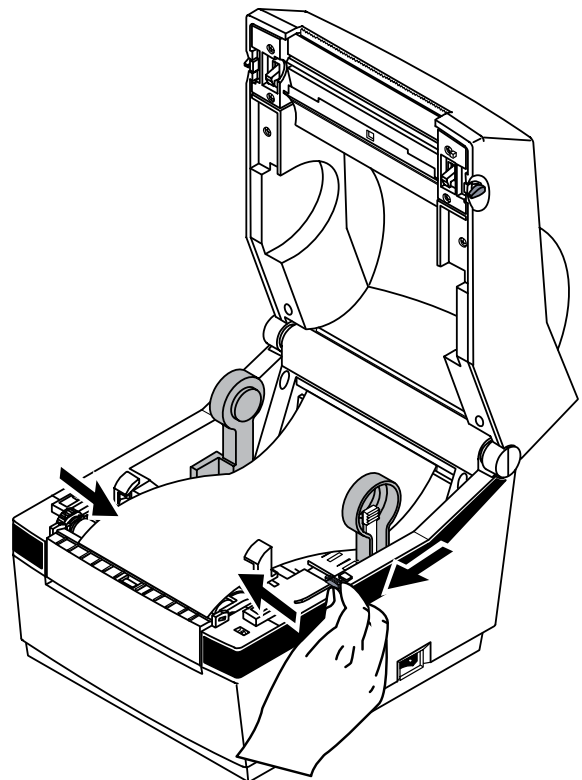
1) Open the Dust Cover and insert paper.



2) Adjust Paper Holders to the paper width and fixed Paper Holders with fixing tool.



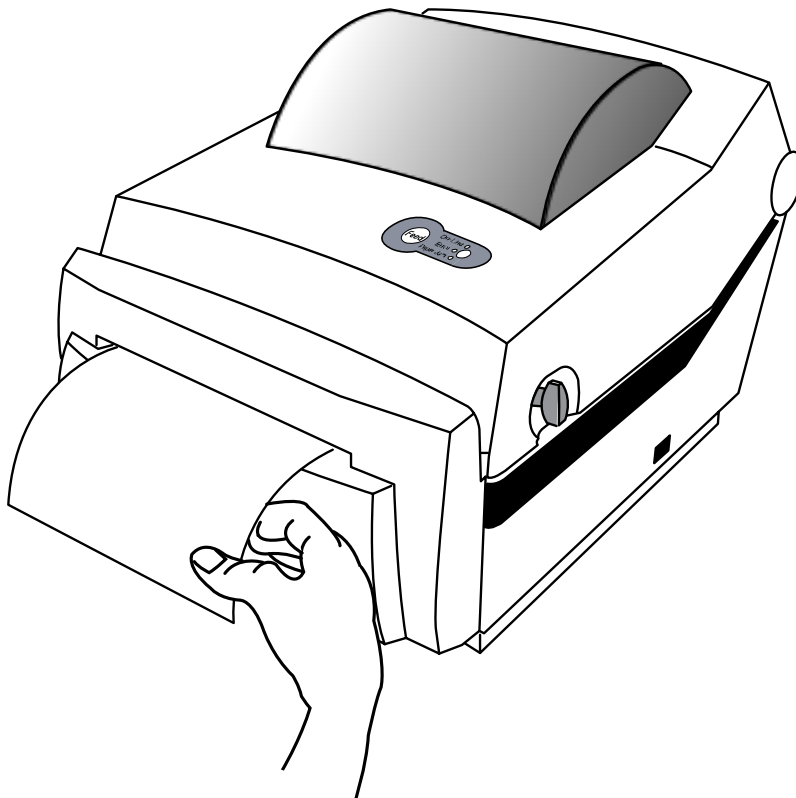
3) Adjust Paper Guides and close the Paper Cover.



5-7 Auto Cutter (option)

Auto cutter should be used for continuous paper only. (i.e. roll paper)

1. Open the Dip switch cover, and make the switch 1 number 7 “On”.
(Refer to printer mode setting at Chapter 5-1.)
2. Put a paper roll into the printer and close the cover.



※ CAUTION (Partial cut)

Once the printer cut the paper, remove the receipt in order for next printing.
Otherwise the receipt could be back into the printer and the cutter would cut it again.

6. Cleaning Head

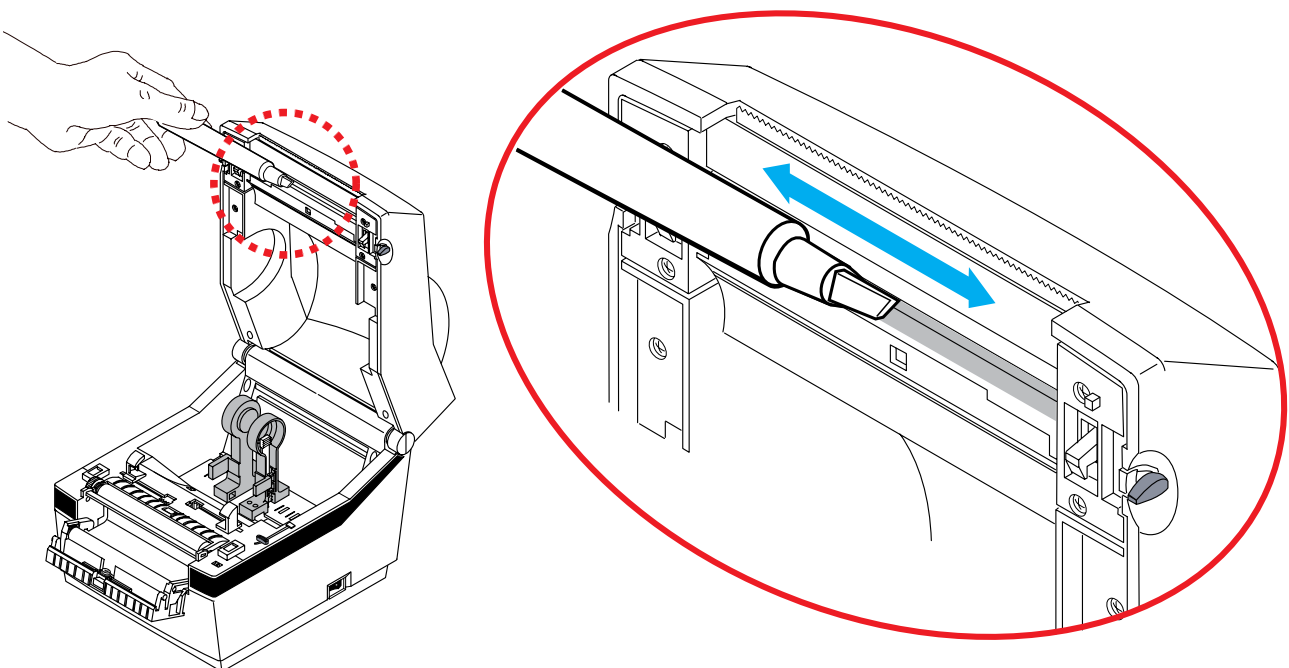
Paper dust on the heating elements may lower the printer quality.
When dirty, clean the print head as follows:

※ **CAUTION**

- Make sure to turn the printer power off prior to cleaning.
- As the print head gets very hot during printing, if intending to clean the print head, turn the printer power off and wait approximately 10 minute before commencement.
- When cleaning the print head, take care not to touch the heated portion of the print head.
 - The print head is susceptible to damage from static electricity, etc.
- Take care not to allow the print head to become scratched and/or damaged in any way.

- 1) Open the paper cover and remove paper and ribbon.
- 2) Wipe the print head with a cleaning pen.
- 3) Use a cloth moistened with an alcohol solution to clean the paper sensor are and remove any paper remnants and/or dust.
- 4) Insert paper into the printer 1~2 minutes after completing the cleaning process and close the printer cover.

※ Perform the cleaning process each time the paper roll is replaced to prevent print quality deterioration.



7. Appendix

7-1 Specifications

Item		Description
Printer	Printing Method	Thermal Transfer / Direct Thermal Printing
	Dot Density	203 dpi (8 dot/mm)
	Printing Width	104 mm
	Printing Speed	127 mm/sec
Paper	Roll	38.1 ~ 106mm
	Fan-Fold Type	45 ~ 112 mm
AC Adapter	SMPS Input Voltage	AC 100~240V
	Frequency	50/60 Hz
	SMPS Output Voltage	DC 24V
Usage Conditions	Temperature	0 ~ 45 °C (Operating) -25 ~ 70 °C (Storage)
	Humidity (except for paper)	30 ~ 80 % RH (Operating) 10 ~ 90 % RH (Storage)

※ Note

Printing speed can vary depending on the data transmission speed and combination of control commands.

7-2 Certification

1) EMC & Safety Standards

- Europe: CE EMC,CB-Scheme:IEC60950-1, GS: EN60950-1: 2001

⚠ WARNING

Use of an unprotected interface cable with this printer conflicts with EMC standards. Users should only use cables approved.

2) CE Mark

- EMC Directive 89/336/EEC
 - EN55002:1994+A1:1995+A2:1997
 - EN55024:1998+A1:2001+A2:2003
 - EN61000-3-2:2000
 - EN61000-3-3:1995+A1:2001
 - EN6100-4-2:1995+A1:1998+A2:2001
 - EN6100-4-3: 2002+A1:2002
 - EN6100-4-4:2004
 - EN6100-4-5:1995+A1:2001
 - EN6100-4-6:1996+A1:2001
 - EN6100-4-8:1993+A1:2001
 - EN6100-4-11:1994+A1:2001
- Low Voltage Directive 73/23/EEC
 - Safety: EN60950-1:2001

3) WEEE (Waste Electrical and Electric Equipment)



This mark shown on the product or its literature indicates that the corresponding item should not be discarded at the end of its working life with other household waste. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate marked items from other types of waste and recycle them responsibly to promote the sustained reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office for details of where and how they can conduct environmentally safe recycling of such items. Commercial users should contact their suppliers and check the terms and conditions of purchase contracts. This product should not be combined with other commercial waste for disposal.

7-3 Label Types

The label types used with this printer are as follows.

- DIP-Switch Labels: PP
- Other Labels: PET